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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/779,512	02/09/2001	Bruno Jechoux	203014US2	7114

22850 7590 06/03/2004

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EXAMINER

CONTEE, JOY KIMBERLY

ART UNIT PAPER NUMBER

2686

15

DATE MAILED: 06/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/779,512

Applicant(s)

JECHOUX, BRUNO

Examiner

Joy K Contee

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2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 12-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12,14 and 18-20 is/are rejected.
- 7) ☒ Claim(s) 13 and 15-17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Response to Remarks/Arguments*

1. Applicant's arguments with respect to original claims 12-14 and 18-20, have been considered but are moot in view of the new ground of rejection.

Notwithstanding the Examiner's acknowledgement, discussed in the interview of February 25, 2004, to withdraw the rejection under 35 USC 102, using Salmela, U.S. Patent No. 5,805,996, Examiner's reconsideration of the independent claim 12 finds that the claim language is not clear.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 12, 13 and 15-17 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: the antennae.

For an example, independent claim 12 recites "rotating an orientation of at least one of said at least two geographic sectors if..." Careful examination of this limitation and the context of the claim, warrants a question for clarity: (1) How does the method of distributing communications established by radio-communication terminals, within a geographic cell of radio-communication network, said geographic cell being sub-divided into at least two geographic sectors, rotate an orientation of a geographic sector? The

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language as written, reads as if the physical geographic sector of the sub-divided geographic cell is being rotated. Examiner acknowledges that dependent claim 13, brings in further limiting language which includes reference to rotating antennae associated with said at least one of said at least two geographic sectors.

***Allowable Subject Matter***

4. Claims 13,15-17 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 12-14 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmela, U.S. Patent No. 5,805,996, previously used, in view of Kangas, U.S. Patent No. 5,504,937, newly discovered.

Regarding claims 12, in view of the rejection under 35 USC 112, second paragraph, Salmela discloses a method of distributing communications established by radio communication terminal, within a geographic cell of radio-communication network, said geographic cell being subdivided into at least two geographic sectors, the improvement comprising:

in that at least one base station may, by mechanically redirecting its antenna according to traffic demand, direct part or all of its capacity to the area of the radio cell where the traffic capacity demand has temporarily increased (i.e., reads on rotating an antenna if a number of links established in one of said at least two geographic sectors is greater than a predetermined number of links) (col. 1, lines 56-60, see Fig. 1).

Salmela fails to explicitly disclose wherein at least one of two antenna sectors are rotated.

In a similar field of endeavor, Kangas discloses a base station having two radio transmitters and two radio receivers, such that the base station directs all or part of its assigned frequency channels to another radio coverage area 1,2 or 3 to help an overloaded base station (see col. 3, lines 47-54 and col. 4, lines 15-30).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify Salmela to include two transmitters and receivers at the base station having the rotating antenna for the purpose of allowing the mobile radio network to effectively adjust its capacity and direct excess capacity to overloaded radio cells as taught by Kangas (see col. 4, lines 28-30).

Regarding claim 14, Salmela discloses the method according to claim 12, wherein said step of rotating comprises one of:

inherently rotating only if a number of links established in at least one of said at least two geographic sectors is less than said predetermined number of links (i.e., reads on antenna is mechanically redirected according to traffic demand, e.g., the reverse of temporarily increased traffic) (col. 1, lines 56-60 and col. 4, lines 33-49).

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Regarding claim 19, Salmela discloses a device for the distribution of communications established by radio-communication terminals, within a cell of a radio-communications network, comprising:

means for rotating an orientation of sectors in said cell according to any one of steps of claims 12-14 (col. 3, line 66 to col. 4, line 15).

Regarding claim 20, Salmela discloses a base station for a cell of a radio communications network, comprising: means for distributing communication among sectors in a cell according to any one of the steps of claims 12-14 (col. 3, line 66 to col. 4, line 15).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Salmela and Kangas, in view of Keskitalo et al. (Keskitalo), U.S. Patent No. 5,966,670, previously used in rejection.

Regarding claim 18, Salmela and Kanagas disclose the method according to claim 12. Salmela does not explicitly disclose, wherein said step of rotating comprises:

Inherently matching a sector rotation speed to a time for carrying out a transfer of communication from one sector to another.

In a similar field of endeavor, Keskitalo discloses matching a sector rotation speed to a time for carrying out a transfer of communication from one sector to another (col. 10, lines 4-15).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify Salmela as modified by Kangas to include matching sector rotation speed to time for transferring communication signals for the purpose of minimizing a delay in the transfer of communication signals from one cell or sector to another.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chheda, U.S. Patent No. 6,266,529, discloses a method for CDMA handoff in the vicinity of highly sectorized cells.

Anttila, U.S. Patent No. 5,448,248, discloses an adaptive radio direction finding system.

Mazur, U.S. Patent No. 4,225,868, discloses a low-profile x-y antenna pedestal utilizing multi-hinge points to provide angular motion for each axis.

Van Puijenbroek, U.S. Patent No. 5,936,580, discloses a multi-sector antennae configuration having a vertical and horizontal displaced antenna pairs.

Budka, U.S. Patent No. 6,014,567, discloses a technique for balancing a communication load in a communication network.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joy K Contee whose telephone number is 703-308-0149. The examiner can normally be reached on 5:30 a.m. to 2:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 703-305-4379. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.



Joy Contee

May 29, 2004



**CHARLES APPIAH**  
**PRIMARY EXAMINER**